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November 8, 2011

Mr. David Szymanski Project Manager New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway, 11th Floor Albany, NY 12233-7011

## RE: 2011 Periodic Review Report Mineral Springs Road Former Manufactured Gas Plant Site

Dear Mr. Szymanski:

National Fuel Gas Distribution Corporation (NFG) completed construction on the remedial action for the Mineral Springs Road Former Manufactured Gas Plant (MGP) site in 2001. Since then, NFG has performed operations and maintenance (O&M) activities for the remedy in accordance with the Final Engineering Report, Volume II – Operations and Maintenance (O&M) Plan, dated May 2002 (O&M Plan) for the project. Those activities have included preparation of annual O&M Reports, which have been submitted since 2002. Because of changes in NYSDEC reporting requirements, AECOM has prepared this Periodic Review Report (PRR) on behalf of NFG rather than an O&M Report to meet the reporting requirements of the O&M Plan.

#### 1. Introduction

The former Mineral Springs MGP was built in the early 1920's and was operated until the 1960's. Coal and oil gasification wastes, particularly coal tar hydrocarbons and blue-stained purifier residuals, were generated during operation of the plant. Investigations have been performed to evaluate environmental conditions at the site. Those investigations identified impacts to soil and groundwater by MGP residues, including organic constituents, dense non-aqueous phase liquids (DNAPL), and cyanide. Remedial activities including excavation, capping, DNAPL recovery, and institutional controls have been performed since 1997 to address these impacts.

This PRR presents and evaluates the results of O&M activities performed at the Mineral Springs site from October 2010 to October 2011 and since the remedial action was completed in 2001. Those activities include annual inspections, groundwater and surface water monitoring, and maintenance and repair of engineering controls. Data collected during performance of these activities and an evaluation of the effectiveness of the remedy are presented below.

The results of that evaluation show that the remedial action has been operated in accordance with the provisions of the O&M Plan and that engineering and institutional controls remain intact and effective.

The annual site inspection indicated there were several locations where maintenance issues needed to be addressed. These activities have been completed.

## 2. Site Overview

The Mineral Springs site lies in a flat, mixed industrial and residential area of West Seneca (and Buffalo), New York. The site is an active NFG service center. Figure 1 shows the facility layout.

The stratigraphy of the site consists of 4- to 8-feet of soil and fill, approximately 10-feet of a nearly continuous upper confining clay layer (UCL), 10- to 15-feet of groundwater bearing silt, sand, and gravel, a lower confining clay layer (LCL), and bedrock. Groundwater is typically encountered 5- to 12-feet below ground surface and seasonally fluctuates approximately 2 feet. Groundwater flow is generally to the northwest towards Mineral Springs Road, Calais Street, and the Buffalo River. Average groundwater velocity across the site is calculated to be approximately 0.06 feet per day.

The former MGP was built in the early 1920's and was operated until the 1960's. Coal and oil gasification wastes, particularly coal tar hydrocarbons and blue-stained purifier residuals, were generated during operation of the plant. In 1990 and 1995, investigations and soil remediations were performed near an oil-water separator pit in the central area of the site. In 1997 and 1998, a Preliminary Site Assessment (PSA) and a follow-up PSA Addendum were conducted. The assessments concluded that soil and groundwater at the site were impacted by MGP residues including dense non-aqueous phase liquids (DNAPL) and cyanide.

An interim remedial measure, conducted in December 1997, removed 407 tons of purifier residuals near a transmission tower in the southwest corner of the site. On August 4, 1998 National Fuel Gas submitted a Voluntary Cleanup Agreement (VCA) program application. VCA number B9-0538-98-08 was signed by NFG on June 2, 1999 and by NYSDEC on November 7, 1999. A Remedial Design Work Plan was developed by NFG and NYSDEC. From May 2000 to June 2001, the Work Plan was implemented and the following remedial tasks were completed:

- Excavation and offsite disposal of 32,200 tons of contaminated soil, rubble, and purifier waste.
- Construction of engineering controls including 130,890 square feet of asphalt cap, 76,144 square feet of geosynthetic cap, and 39,369 square feet of clay cap over areas where purifier waste was located.
- Capping of hydrocarbon seeps within the Eastern Drainage Ditch, including construction of 640 linear feet of geosynthetic cap and 750 linear feet of clay cap
- Installation of additional chain link security fence around the site perimeter.
- Implementation of site use and deed restrictions.
- Collection, treatment, and disposal of 207,000 gallons of contaminated groundwater.

During the annual site inspection in April 2007, NFG identified a faint blue stain in surface gravel near Building 8. In July 2007, a soil investigation in the area identified a subsurface lens of bluish stained soils. Based on the results of the investigation, a work plan was prepared describing an Interim Remedial Measure (IRM) to address the stained soil. The IRM Work Plan was submitted to NYSDEC in November 2008. The scope of the IRM included installation of a 24,000 square foot asphalt cap immediately to the east of the existing Building 3 East Asphalt Cap (B3EAC). Work to

install the new cap took place in June and July 2008. The new cap is designated as the Building 8 West Asphalt Cap (B8WAC), as shown on Figure 1.

In March 2011, NFG upgraded the fuel dispensing system at the Mineral Springs site. The location of the fuel island is shown as on Figure 1. This work was part of a normal facility upgrade and was not performed as a remedial action. Visual and odor indications of petroleum contamination were encountered below the fuel island during the excavation, which was reported to the Buffalo NYSDEC Spills Unit. Spill # 1012737 was assigned to the incident. As agreed to with the Spills unit, an NFG contractor dug four test pits and collected four soil samples to determine if the fuel had migrated beyond the immediate area of the fuel island. The samples were analyzed for volatile and semivolatile organic compounds.. The results of the sampling showed that only one compound, acetone, had a concentration in soil above unrestricted use standards. The measured concentration of acetone in one sample was 0.054 mg/kg as compared to the unrestricted soil cleanup standard of 0.050 mg/kg. Acetone is a common laboratory contaminant. In addition, a sample of soil excavated during the installation was also collected and analyzed for disposal parameters. The spill was closed on May 18, 2011.

As part of the fuel island upgrade, a trench was excavated for installing a new electrical conduit between Building 3 and the fuel island. During excavation, a 6-inch lens of blue tinted rock-like or slag material was encountered underneath the pavement over a 15-foot length in the 18-inch deep trench. About 0.5 cubic yards of stained slag was separated from other excavated material. A sample of this material was collected and sent to the laboratory for cyanide analysis. The results of that analysis showed a cyanide concentration of 16 mg/kg, which is less than the unrestricted soil cleanup objective for cyanide. In addition, approximately 2,910 gallons of water was pumped into a vac truck during the excavation work. Both the water and soil were shipped to permitted off-site facilities for disposal.

# 3. Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The objectives of the remedial action performed at the Mineral Springs site include the following:

- Preventing human contact with COC in purifier waste, soil, and sediment
- Preventing human contact or ingestion of COC in groundwater
- Preventing leaching of COC from purifier waste to groundwater
- Preventing leaching of COC from coal tar impacted soil to surface water

Preventing human contact with COC was addressed by excavating soil and purifier waste; capping areas where purifier waste was left in place; capping coal tar residues in the Eastern Drainage Ditch; and implementing institutional controls to limit site use, prevent use of groundwater, and provide protection for excavation workers. The effectiveness of the remedial action in meeting these objectives is evaluated by performing an annual inspection to verify that engineering controls remain intact and that site use has not changed. The results of this year's inspection, described in the next section, identified routine maintenance issues, but found that the caps remain in place and are intact and that the remedy is effective and protective.

Preventing leaching of COC to groundwater and surface water was addressed by excavating soil and purifier waste; capping areas where purifier waste was left in place; capping coal tar residues in the Eastern Drainage Ditch; and removing DNAPL. The effectiveness of the remedial action in meeting these objectives is evaluated by performing an annual inspection and by implementing a groundwater and surface monitoring program. As described above, the site inspection found that engineering controls remain intact and effective.

In January 1998, NFG performed a soil gas survey to evaluate potential exposures to workers inside buildings at the Mineral Springs site. The report concluded that the results did not indicate a significant potential for exposure by site workers to excessive concentrations of airborne constituents resulting from soil gas migration into occupied building spaces.

In 2011, groundwater monitoring was performed at the site in April and September. The sampling programs were performed in accordance with the 2002 O&M Plan. An evaluation of the groundwater and surface water monitoring results from data collected during the April and September 2011 sampling events is presented in the following sections Details of the results of this year's groundwater monitoring are presented in the April 2011 and September 2011 Groundwater and Surface Water Monitoring Reports. Figures 2 and 3 provide groundwater contours indicating the direction of groundwater flow at the site.

#### **Upgradient Site Perimeter**

Well MW-17 is located in the southeast corner of the site and monitors upgradient groundwater quality. Other than cyanide, MGP COCs are not typically present in detectable concentrations in the upgradient groundwater. A table showing historic and current groundwater monitoring results for MW-17 is presented in Appendix A. Benzene, toluene, ethylbenzene, and xylene (BTEX) compounds and polynuclear aromatic hydrocarbon (PAH) compounds have not historically been detected in MW-17. In the past two years, samples collected in August or September have shown significant concentrations of PAHs. Concentrations of five PAH compounds exceeded groundwater guidance values in both August 2010 and September 2011.

#### **Downgradient Site Perimeter**

Wells MW-20 and MW-21 are located downgradient of the western boundary of the site on Calais Street. Wells MW-13, MW-14, MW-22 and MW-23 are located just inside the northern property boundary near Mineral Springs Road. These six "sentinel" wells monitor groundwater quality downgradient of the site. The groundwater samples from these six wells are analyzed for total and free cyanide. Monitoring wells MW-13 and MW-23 are also analyzed for BTEX and PAHs during the August sampling event.

Tables in Appendix A show cyanide and hydrocarbon concentrations over time in these wells. Total cyanide concentrations in four of the wells, MW-13, MW-14, MW-20, and MW-22, appear to show no significant change over time. In two of the wells, MW-21 and MW-23, there does appear to be a consistent reduction in total cyanide concentrations in groundwater over the period between 1997 and 2011. BTEX and PAHs are not normally detected in MW-23. For MW-13, there appears to be a decrease in BTEX concentrations over time. BTEX and PAH compounds were not detected above groundwater standards in sentinel wells.

#### **On-site Purifier Residuals Impacted Areas**

Wells MW-12 and MW-16 monitor groundwater quality at the Eastern Swale HDPE Cap (ESHC) and the Clay Cap (CC), respectively. These are locations of known subsurface deposits of purifier

box residuals. These deposits were remediated by capping. Samples from these two wells were analyzed for total and free cyanide. As its chart shows, there does not seem to be any change in the concentration of total cyanide in MW-12. On the other hand, there does appear to have been a consistent increase in cyanide in MW-16 since 2001. The cause of this change is not known.

#### **On-site Hydrocarbon Impacted Areas**

Wells MW-07, MW-10, downgradient of the Separator Pits Excavation (SPE), MW-11A, adjacent to the drainage ditch cap and MW-19, downgradient of the Northern and Eastern Tar Boils Excavations monitor on-site groundwater quality. These are locations where subsurface soils impacted with hydrocarbon non-aqueous phase liquid (NAPL) are found. Samples from these wells were analyzed for BTEX and PAH compounds.

BTEX compounds are generally detected at low levels or not at all in MW-10. Concentrations of individual compounds rarely exceed groundwater standards. PAH compounds are typically also detected at low levels in this well, although several compounds were detected above groundwater standards in August 2010 and April 2011. BTEX and PAH compounds are consistently detected at concentrations well above groundwater standards in wells MW-07, MW-11A, and MW-19. A review of historic analytical data indicate that there has been no significiant change in concentrations of organic compounds in MW-11A. The results for MW-07 appear to indicate that there have been decreases in both PAH and BTEX compounds since groundwater monitoring began. The results for MW-19 do not show any consistent change in concentrations of COC.

#### **Surface Water**

Surface water samples are collected near the Calais Street storm sewer inlet (SW-01) and at the Eastern Drainage Ditch near the Class D Stream (SW-02). Samples collected from location S-02 monitors surface water downgradient from the Eastern Drainage Ditch Cap while location S-01 monitors concentrations of COC in surface water downgradient of the Mineral Springs site. Total cyanide has never been detected at a concentration above the surface water standard, 9,000 ug/L, in either sampling location. Historically, BTEX and PAHs have not been consistently detected in surface water. Since 2009, concentrations of two PAHs, benzo(a)anthracene and benzo(a)pyrene, have been detected at location S-02 above water quality standards on three different occasions during the late summer monitoring event. However, these compounds have not been detected downstream in location S-01. BTEX compounds were detected in S-01 in September 2011 at concentrations more than a factor of 100 less than ambient water quality standards.

# 4. O&M Plan Compliance Report

The components of the O&M program for the Mineral Springs site are established in the 2002 O&M Plan. These include groundwater and surface water monitoring, DNAPL recovery, inspections, maintenance and repair of engineering controls, and reporting. Details of this program are described in the O&M Plan and summarized in Table 1. Table 2, taken from the O&M plan, summarizes the groundwater and surface water monitoring program.

O&M activities completed since the last report (dated October 2010) include the following:

• The annual site inspection was performed on April 26, 2011.

- Two groundwater and surface water monitoring rounds performed on April 21 and 22, and September 12 and 13, 2011.
- Continued operation of the DNAPL recovery system and removal of approximately 0.5 gallons of water containing DNAPL blebs in April 2011 and August 2011.
- Submittal of the Groundwater and Surface Water Monitoring Reports for the monitoring events performed in April and September 2011.
- Performance of maintenance activities to address issues identified during the annual inspection.
- Re-inspection of the site on August 23, 2011.

During the annual inspection in April, observations of site conditions were recorded. The inspection checklist is included as Appendix B. Photographs taken during the inspection are included in Appendix C. An Institutional and Engineering Controls Certification Form is attached in Appendix D.

#### **Site Inspection**

#### **Clay Caps**

Clay caps, designated CC on Figure 1, are located southeast of Building 14 and in the Eastern Drainage Ditch north of the northern culvert and south of the southern culvert, designated EDD.

The clay cap southeast of Building 14 has been mowed periodically to prevent tree growth. No blue stained soils were observed during the inspection. Several large holes were observed along the fence line south of the cap, near the culvert in a different location than the hole identified and repaired last year. Following the April inspection NFG filled the holes with gravel. Sink holes observed this year and in the past near the fence line result from infiltration of soil into the storm water culvert located south of the site. The culvert is not located on NFG property. A review of the as-built drawing from cap construction shows that the cap in that location includes a clay cutoff wall constructed as part of the clay cap. The drawing shows that the holes observed have not impacted the cutoff wall and have not reduced the effectiveness of the cap.

In the clay-capped sections of the Eastern Drainage Ditch, no erosion, animal burrows, or hydrocarbon sheen were observed.

#### **Geomembrane Caps**

Geomembrane caps, constructed of 40-mil high density polyethylene (HDPE) and soil or stone cover, are located in the Eastern Swale and in the Eastern Drainage Ditch between the culverts. These caps are designated Eastern Swale HDPE Cap (ESHC) and EDD respectively.

The ESHC has been mowed periodically. No plastic or geofabric, animal burrows, or blue-stained surface soil were visible. Debris, plywood, and piles of soil were observed on both the northern and southern sides of the cap. These had been removed by the time of the re-inspection. Corrugated HDPE pipe placed in a gravel filled ditch which drains the cap to the EDD was visible on the surface of the gravel. The pipe had been reinstalled by the time of the re-inspection. Chain fence at the west side of cap had been knocked down. It was fixed by the time of the re-inspection.

The EDD cap includes an 18-inch diameter HDPE surface water drain pipe. There was no erosion, animal burrows, deep-rooted perennial plant species, or hydrocarbon sheen observed. The "no dig" signage was in place. Water levels in the EDD were very high because of recent heavy rains.

#### **Asphalt Caps**

Asphalt caps are located south and east of Building 3, designated B3SAC and B3EAC respectively; north and south of the Eastern Swale, designated ESNAC and ESSAC; and west of Building 8, designated B8WAC. All caps were observed to be intact with no significant cracking. Crack repairs performed in previous years remain intact.

#### **Other Areas**

Throughout the remainder of the site, no tar boils or blue-stained soils were observed. No hydrocarbon sheens were observed in the Class D Stream or the Eastern Drainage Ditch. The compacted backfill placed in the various former Tar Boils and Separator Pit excavations has been maintained as necessary to assure run-off control. These areas showed no ponding of surface water. The site perimeter security fence was observed to be intact.

#### Groundwater and Surface Water Monitoring

Groundwater and surface water monitoring results for the April 2011 and September 2011 monitoring events are presented in the groundwater and surface water monitoring reports, prepared by AECOM and submitted to NYSDEC in August and October 2011. A summary of groundwater and surface water analytical results for the period between August 1995 and September 2011 is tabulated in Appendix A. Sampling locations are shown on Figure 1. A discussion of the results of monitoring in specific areas of the site were presented in the previous section.

#### Conclusions

Since the last O&M report, O&M activities described in the O&M Plan have been performed as specified and no deficiencies have been identified. All engineering and institutional controls are intact and remain effective. NFG has been prompt in making repairs and performing maintenance when significant issues have been identified.

As discussed above, the results of groundwater monitoring indicate that there have been changes in groundwater concentrations of organic constituents and cyanide in some wells. Concentrations of cyanide in groundwater in the sentinel wells at the downgradient property boundary remain at concentrations somewhat higher than NYSDEC standards although significant reductions in concentrations were noted in two wells.

# 5. Overall PRR Conclusions and Recommendations

As discussed above, the O&M program is being implemented in accordance with the provisions of the O&M Plan. The results of the site inspection indicate that engineering and institutional controls remain intact and continue to be effective in meeting remedial objectives.

The results of groundwater and surface water monitoring show that groundwater concentrations have changed since remediation at the site was completed. At the downgradient property boundary, concentrations in two of the five wells have shown a decrease in the concentrations of cyanide. One

has shown a decrease in the concentration of BTEX. It is the conclusion of this report that the remedial action remains protective and shows potential signs of progress.

Several maintenance issues related to the caps installed during the remedial action were identified during the April 2011 site inspection. Those issues have been addressed. Please do not hesitate to call me with questions at 978-589-3707.

Sincerely yours,

Thomas P. Clark, P.E. Senior Engineer

cc: C. Burke – NFG T. Alexander – NFG S. Messier – NYSDOH R. Kennedy – Hogdson Russ LLP T. Raby, AECOM

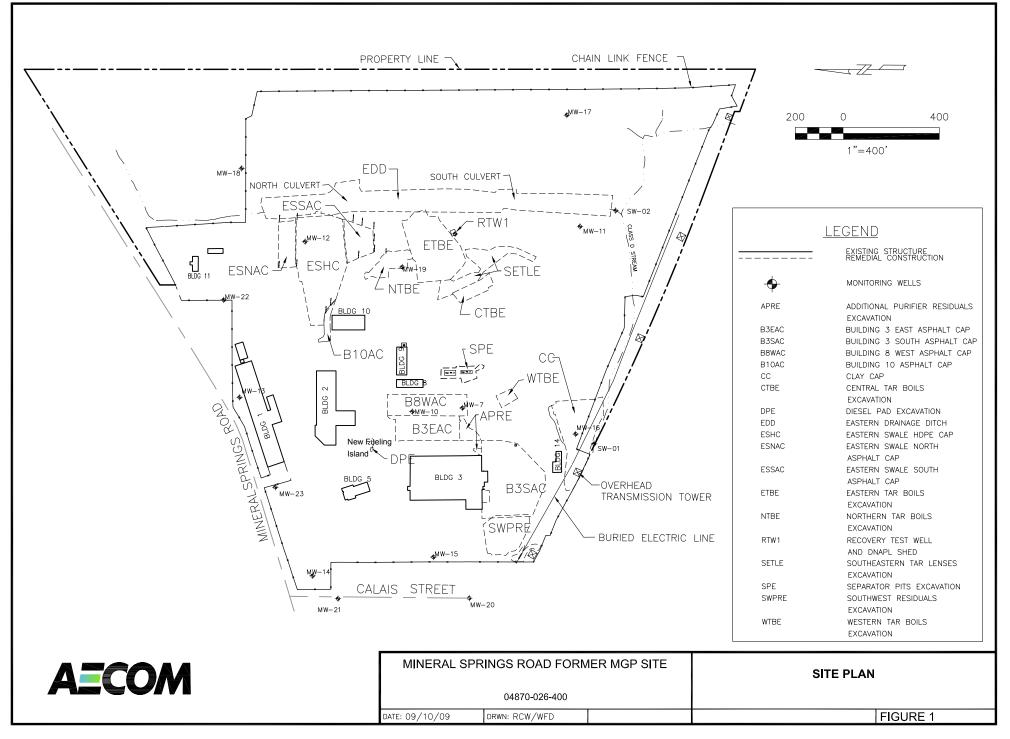
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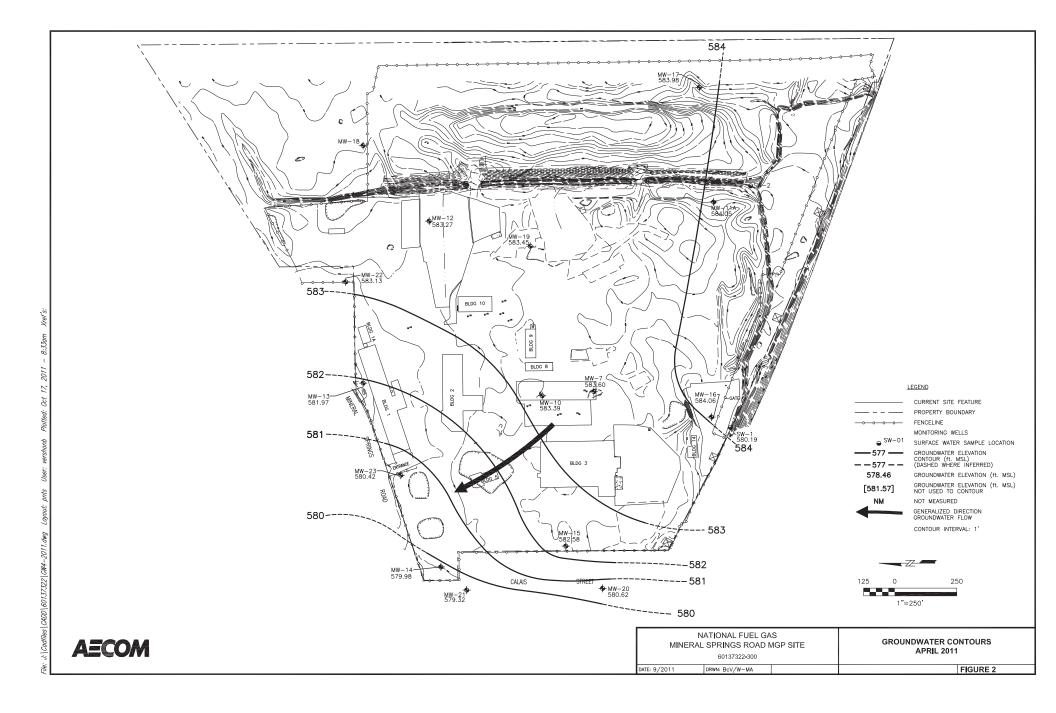
# Table 1Operations, Maintenance, and Monitoring Scope of WorkMineral Springs Former MGP Site

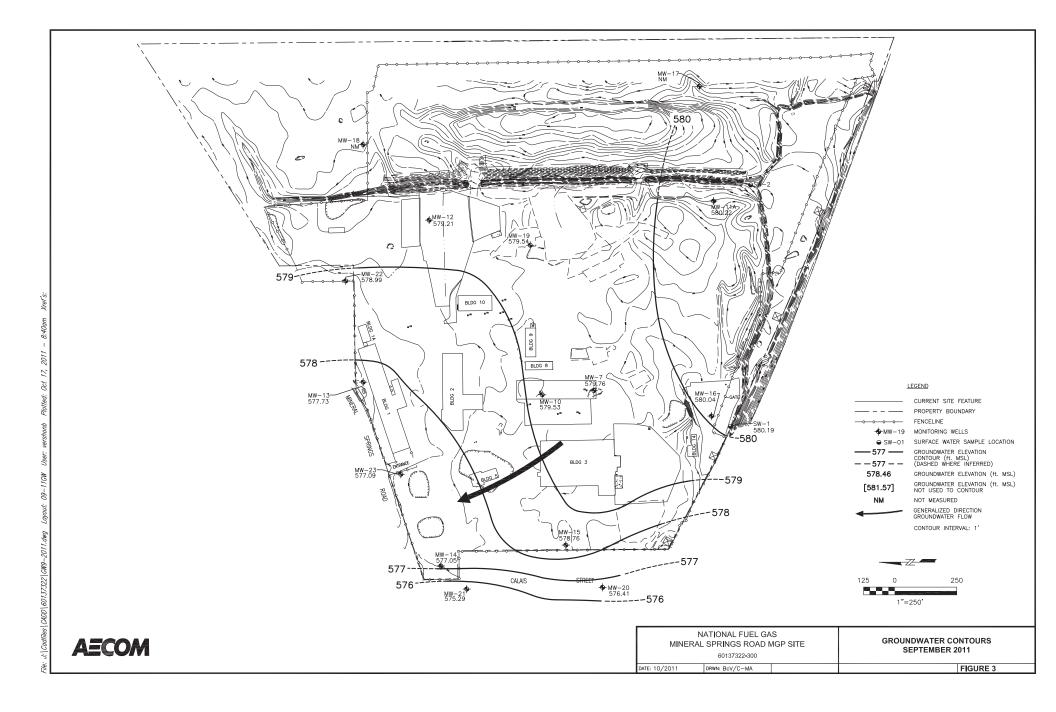
	Frequency	Description	Notes
Groundwater and Surface Water Monitoring	Twice a year	Groundwater and surface water monitoring as specified in Table 2. Monitoring takes place in April or May and July or August.	Scope in 2002 included monitoring three times a year. The frequency was modified in 2003 with NYSDEC approval.
DNAPL Recovery Test Well	Twice a year	DNAPL recovery from well RTW-1.	Continuous operations of RTW-1 was halted in 2002 with NYSDEC approval since only de minimus amount of DNAPL was being recovered
Site Inspections	Annual	Inspection of the following: Clay, geomembrane, and asphalt caps Ground surface for signs of tar or purifier residues Fencing Stream	
Maintenance and Repair	As needed	Activities determined based on inspection results	
Describer	Twice a year	Groundwater Monitoring Report	
Reporting	Annually	O&M Report	Periodic Review Report (PRR) now submitted annually to meet new NYSDEC requirements

			Table 2 Sampling S Mineral Sprin		ıble	
Location	Cyanide, Total	Cyanide, Free	BTEX	PAHs	Water Elevation	Benchmark Elevation
	USEPA SW846 9012A	ASTM D4282-89	USEPA SW846 8260B	USEPA SW846 8270C		(top of PVC casing)
Upgradient Sit	te Perimeter					
MW-17	Х	Х	Х	Х	Х	587.28
Downgradient	Site Perimet	er				
MW-13	Х	х	annually	annually	Х	591.85
MW-14	Х	Х			Х	589.81
MW-15					Х	590.93
MW-20	Х	х			Х	587.30
MW-21	Х	х			Х	587.88
MW-22	Х	х			Х	592.50
MW-23	Х	х	annually	annually	Х	589.28
Onsite Purifie	r Residuals lı	mpacted Area	S			
MW-12	Х	х			Х	591.40
MW-16	Х	х			Х	588.99
Onsite Hydrod	carbon Impac	ted Areas				
MW-07			Х	Х	Х	587.26
MW-10			Х	Х	Х	587.61
MW-11			Х	Х	Х	590.03
MW-19			Х	Х	Х	589.83
Onsite Surface	e Water					
SW-01	Х	Х	Х	Х	Х	top of headwall = 587.0
SW-02	Х	Х	Х	Х		
QA/QC Sampl	es (frequend	;y)				
Trip Blank			Х			(one per shipment)
Field Duplicate	х	х	х	Х		(one per event)
Equipment Blank	x	X	х	Х		(one per event)
DNAPL Recov RTW-1	very				(purge wel	l of accumulated DNAPL)
Total	13	13	10 or 12	9 or 11	15	
Container, Preservative	500 ml plastic, NaOH	1 L plastic amber, NaOH	40 mL VOA vial, HCI (x2)	1 L glass amber, NP (x2)		

Figures







Appendix A

# Groundwater and Surface Water Monitoring Results

	MW-07 N	1W-07	WW-07 MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07 MV	V-07	MW-07	MW-07	MW-07	/W-07	MW-07	MW-07 M	W-07
DATE	Aug-95 N	1ay-96	Jul-97 Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07 Ap	or-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11 Se	эр-11
Benzene	3320	1210	4900	5100	5200	4800	3900	3300	2700	2200	3000	2100	1900	3200	2800	2000	1700	2800	2000	2900	2600	2000	1900	490	1100	780	850	330	840	690	600
Toluene	389	20	750	2000	2700	2500	3400	1700	1500	1200	1400	1200	930	1700	1800	1300	930	1100	840	1100	570	620	100	270	590	420	250	96	44	210	37
Ethylbenzene	2400	410	2900	3700	3600	3300	2000	2100	2300	1900	2200	1900	1900	2700	2500	2500	1800	2700	2200	3100	2500	2500	2000	410	1500	1100	1000	520	1200	1200	800
Xylene (sum of isomers)	1038	63	1200	1800	1900	1800	1600	1100	1200	1100	1100	1100	1000	1400	1200	1400	1000	1600	1300	1800	1500	1400	1100	270	910	820	700	360	820	770	510
Total BTEX	7147	1703	9750	12600	13400	12400	10900	8200	7700	6400	7700	6300	5730	9000	8300	7200	5430	8200	6340	8900	7170	6520	5100 1	1440	4100	3120	2800	1306	2904	2870	1947
Naphthalene	3270	3000	2400	4100	5900	3400	3400	3600	2200	2600	5000	3100	3800	3200	3700	2700	4600	3500	3600	3000	3600	3700	3100	430	1000	1600	1400	650	1700	2100	1500
Acenaphthylene	nd	nd	nd	nd	nd	nd	2.2	nd	3	nd	2.5	nd	0.63	nd	nd	nd	nd	nd													
Acenaphthene	240	150	180	180	180	150	140	160	80	120	150	nd	160	120	160	180	160	130	220	120	130	nd	130	19	69	32	36	15	60	76	49
Fluorene	nd	28	45	nd	nd	nd	28	nd	nd	nd	33	nd	nd	27	nd	42	nd	24	46	32	24	nd	25	7.6	13	6.4	6.2	2.7	12	13	9.6
Phenanthrene	nd	nd	37	nd	nd	nd	32	nd	nd	nd	30	nd	nd	nd	nd	38	nd	nd	nd	33	28	nd	25	2.5	12	4.3	4.6	2.1	11	16	9.5
Anthracene	nd	nd	nd	nd	nd	nd	3.6	nd	5.4	3.9	nd	3	2.5	1.5	nd	nd	0.23	1.4	nd	0.98											
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.2	0.27	nd	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.28	nd	nd
Benzo(a)Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(b)Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(k)Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(a)Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno(1,2,3-cd)Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Dibenzo(a,h)Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.47	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(g,h,i)Perylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene						180	190	200	100	180	230	nd	280	170	270	320	300	230	400	350	250	270	230	24	120	73	84	33	110	160	nd
Total PAHs	3510	3178	2662	4280	6080	3730	3796	3960	2380	2900	5443	3100	4240	3517	4130	3283	5060	3884	4266	3541	4036	3970	3513	488	1215.5	1716.3	1531	703.23	1895	2365 1	569.1
Cyanide, total (Exygen/ Test America)			189																												
Cyanide, total (Clarkson Univ.)																															
Cyanide, free (Exygen/ Test America)																															
Cyanide, free (Clarkson Univ.)																															
Water Elevation (feet)			580.13 581.68	579.84	581.70	581.50	579.98	580.58	582.01	580.96	580.26	581.66	580.31	580.32	582.45	581.24	581.36	582.28	579.76	581.90	579.24	582.58	578.21 58	1.99	580.83	581.93	581.01	582.26	580.00	583.60 5	79.76

MW-10	MW-10 MV	V-10 M	W-10 MW-10	MW-10	MW-10 M	IW-10 I	MW-10	MW-10	MW-10	MW-10	0 MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10 MW	V-10	MW-10	MW-10	MW-10 M	W-10 M	/W-10	MW-10 M\	<i>N-</i> 10
DATE	Aug-95 Ma	y-96 J	ul-97 Feb-98	Jun-99	Apr-00 A	pr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07 Ap	r-08	Sep-08	Apr-09	Aug-09 A	pr-10 A	Aug-10	Apr-11 Se	≠p-11
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	i no	1.2	nd	nd	nd	nd	nd	0.83	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	0.89	nd	l no	0.81	nd	nd	nd	nd	nd	nd	nd	nd	nd										
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	i no	0.9	nd	1.3	nd	nd	nd	nd	nd	nd	nd	nd									
Xylene (sum of isomers)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	i no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.66	nd	nd	nd	nd	nd	nd	nd	nd
Total BTEX	0	0	0	0	0	0	0	0	0.89	C	) (	2.91	0	0	0	0	0	0.83	0	0	0	0	1.96	0	0	0	0	0	0	0	0
Naphthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1 2.1	nd	nd	nd	nd	nd	nd	0.78	nd	43	nd	nd	2.3	nd	nd	nd	nd	nd	nd	nd	nd
Acenaphthylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Acenaphthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	i no	l no	nd	nd	nd	nd	nd	nd	nd	nd	nd										
Fluorene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.69	nd
Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.77	nd
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.53	nd
Benzo(a)Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.27	nd	nd
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.41	nd	nd
Benzo(b)Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.18	nd
Benzo(k)Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(a)Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno(1,2,3-cd)Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.35	nd	nd
Dibenzo(a,h)Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l no	nd	nd	nd	nd	nd	nd	nd	nd	nd										
Benzo(g,h,i)Perylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	l no	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.28	nd	nd
2-Methylnaphthalene						nd	nd	nd	nd	nd	i no	l nd	nd	nd	nd	nd	nd	nd	nd	3.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total PAHs	0	0	0	0	0	0	0	0	0	C	2.1	C	0	0	0	0	0	0.78	0	46.8	0	0	2.3	0	0	0	0	0	1.31	2.17	0
Cyanide, total (Exygen/ Test America)			334																												
Cyanide, total (Clarkson Univ.)																															
Cyanide, free (Exygen/ Test America)																															
Cyanide, free (Clarkson Univ.)																															
Water Elevation (feet)		5	79.87 581.44	579.33	581.19 5	81.07	579.64	580.10	581.61	580.51	579.51	581.23	579.93	579.16	581.92	580.80	580.90	581.78	579.53	581.15	580.04	582.06	578.19 58	1.51	580.45	581.10	580.82 5	30.49	580.56	583.39 57	'9.53

MW-11 / MW-11A														/W-11A/W														I				
DATE	Aug-9	5 May-9	6 Jul-97	/ Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03 No	ov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06 A	ug-06	Apr-07	Aug-07 A	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11 S	ep-11
Benzene			35	5	nd	nd	nd	nd		nd	nc	nd	nd	350	80	50	270	150	140	250	67	140	100	180	230	210	190	200	77	150	15	170
Toluene			17	7	nd	nd	nd	68		nd	3.8	nd	nd	230	1.2	0.7	35	nd	1.2	7	0.56	1.2	0.99	nd	5.5	nd	nd	nd	0.78	1.9	nd	nd
Ethylbenzene			94	L .	nd	nd	nd	nd		nd	nc	nd	nd	650	3.5	6.9	30	5.4	9.6	38	2.5	8.7	2.8	5.5	69	71	67	80	35	56	5.7	63
Xylene (sum of isomers)		-	83	3	7	nd	nd	nd		nd	nc	nd	nd	410	9.1	9.2	38	16	16	30	8.1	14	5.5	29	41	30	24	28	21	27	3.5	25
Total BTEX			229	)	7	0	0	68		0	4	0	C	1640	94	67	373	171	167	325	78	164	109	215	346	311	281	308	133.78	234.9	24.2	258
Naphthalene			140	)	12		nd	nd		nd	nc				130	nd		31	nd	20	2.9	nd	nd	0.79	7.1	2.5	4.1	9.3	0.78	2.6		4
Acenaphthylene				,	2	nd		nd		nd	nc				8.4	nd		9.4	2.8	8.9	5.1	nd	5.8	0.93	6.9				2.4	3.8		2.8
Acenaphthene			-		nd			nd		nd	no		nd		3.1	1.2		5.9	4.5			nd	nd	2.7	5.6		4.1	6.1	3.1	5.1	2.6	4.6
Fluorene			no		nd			nd		nd	nc				nd 2.2	nd	1.9	2.3	1.3	1.7	1.5	nd	nd		5.1	0.86	0.89		0.72	1.2		nd
Phenanthrene			no		nd			nd		nd	nc					nd	3.7	6.4	nd	2	nd	nd	nd		1.5 2.2				nd	0.56		nd
Anthracene			no	+	nd		nd nd	nd nd		nd	nc	nd	nd	+	nd nd	nd	0.5	1.6	nd 0.3	nd nd	nd	nd	nd	nd 0.57			nd 0.32	l	nd 0.24	0.3	0.24	nd 0.42
			no		nd	nd nd		nd		nd nd	nc		nd		nd	nd nd	nd 0.3	nd 0.73	0.3	0.33	nd	nd nd	nd	1.2	nd nd		0.32		0.24	0.51		0.42
Pyrene Benzo(a)Anthracene		-	n	-	nd	nd		nd		nd	nc				nd	nd	nd	nd	0.40 nd	0.33 nd	nd	nd	nd	nd	nd		0.30		nd	0.52 nd		0.50
Chrysene			n	-	nd			nd		nd	nc	-	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd		nd		nd		nd	nd		nd
Benzo(b)Fluoranthene		-	no		nd			nd		nd	nc				nd	nd		nd	nd	nd	nd	nd	nd		nd		nd		nd	nd		nd
Benzo(k)Fluoranthene			n		nd	-		nd		nd	nc	-	-		nd	nd		nd	nd	nd	nd	nd	nd		nd		nd		nd	nd		nd
Benzo(a)Pyrene			n		nd			nd		nd	nc				nd	nd		nd	nd	nd	nd	nd	nd		nd		nd		nd	nd		nd
Indeno(1,2,3-cd)Pyrene			no		nd			nd		nd	nc				nd	nd		nd	nd	nd	nd	nd	nd	nd	nd				nd	nd	nd	nd
Dibenzo(a,h)Anthracene		-	n	1	nd	nd	nd	nd		nd	nc	nd	nd	l nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd
Benzo(g,h,i)Perylene			no	1	nd	nd	nd	nd		nd	nc	nd	nd	l nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene							nd	nd		nd	nc	nd	nd	31	4.4	nd	0.26	nd	nd	0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total PAHs			156	6	14	0	0	0		0	C	0	C	202	148	1	58	57	9	39	10	0	6	6	28	11.76	13.47	25.67	7.51	14.59	5.83	12.38
Cyanide, total (Exygen/ Te	st America)		1040	)					1340																							
Cyanide, total (Clarkson U																																
Cyanide, free (Exygen/ Te	,	-							nd																							
Cyanide, free (Clarkson U	i																															
Water Elevation (feet)			580.28	582.26	579.82	583.55	583.85	579.28	581.30	583.85	581.32	581.03	582.97	580.70 5	81.11	583.03	581.54	581.87 5	82.74	580.09	582.38 5	80.78	583.07	578.46 5	582.43	581.32	582.35	581.46	582.85	580.37	584.05 \$	80.22

V-12 MW-12 MW-12 M
ul-01 Nov-01 Apr-02 J
1840 393 522
nd nd nd
9.30 579.54 581.40 5
9.30

MW-13	Ν	/W-13 MW-	13 MW	-13 M	1W-13 M	W-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13 MW-1	3 MW-1	3 MW-13	MW-13 MW-	13 MW-1	3 MW-13 I	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13 MW-13	8 MW-13	MW-13 MW-1
DATE	ŀ	Aug-95 May-	96 Jul	-97 F	eb-98 Ju	un-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03 Nov-0	3 Mar-0	4 Jun-04	Nov-04 Apr-	05 Jul-0	05 Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09 Apr-10	Aug-10	Apr-11 Sep-1
			_																										
Benzene				4	nd								1.8		3	7		1.2			1.9		2.1	nd			1	0.44	0.7
Toluene				nd	nd								nd		r	d		nd			nd		nd	nd			nd	nd	n
Ethylbenzene				nd	nd								nd		r	d		nd			nd		0.38	nd			nd	nd	n
Xylene (sum of isomers)				nd	nd								nd		r	d		nd			nd		nd	nd			nd	nd	n
Total BTEX			_	4	0								1.8		3	.7		1.2			1.9		2.48	0			1	0.44	0.7
Naphthalene				nd									nd		r	d		nd			2.8		0.88	nd	1		nd	nd	n
Acenaphthylene				nd									nd		r	d		nd			nd		nd	nd	1		nd	nd	n
Acenaphthene				nd								1	nd		r	d		nd			nd		nd	nd	1		nd	nd	n
Fluorene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Phenanthrene				nd									nd		r	d		nd			nd		nd	nd	1		nd	nd	n
Anthracene				nd									nd		r	d		nd			nd		nd	nd	1		nd	nd	n
Fluoranthene				nd									nd		r	d		nd			nd		nd	nd	1		nd	nd	n
Pyrene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Benzo(a)Anthracene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Chrysene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Benzo(b)Fluoranthene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Benzo(k)Fluoranthene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Benzo(a)Pyrene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Indeno(1,2,3-cd)Pyrene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Dibenzo(a,h)Anthracene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Benzo(g,h,i)Perylene				nd									nd		r	d		nd			nd		nd	nd	I		nd	nd	n
2-Methylnaphthalene													nd		r	d		nd			nd		nd	nd	I		nd	nd	n
Total PAHs				0									0			0		0			2.8		0.88	0			0	0	
Cyanide, total (Exygen/ Te	st America)		3	323		356	280	129	465	716	nd	157	399	142	423 52	8 17	5 108	280 1	03									449	nd 62
Cyanide, total (Clarkson U	niv.)																145	234	55 36	61	300	3	664	54	467	27	327 nd	1	
Cyanide, free (Exygen/ Tes	st America)						nd	33	119	nd	nd	96	13	nd	51 2	2 2	2 nd	nd	45						1			nd	nd n
Cyanide, free (Clarkson Ur	niv.)															5.	3 nd	nd	nd	3 nd	nd	nd	5.3	2.3	8.2	nc	nd nd	1	
Water Elevation (feet)			578	.17 5	79.72 57	77.70	579.47	579,28	577,91	578,23	579,90	578.80	577.83	579,23	578.13 578.1	8 579.7	8 578.69	578.80 579.	87 577.9	5 579.42	578.30	580,29	577.3	579.65	578,95	579.44	578.59 579.65	578,10	581.97 577.7
			010				510.41	575.20	511.51	510.25	510.00	- 57 0.00	511.00	51 5.25	0.10 0/0.	010.1	010.00	0.000 010.	0. 0.7.0	010.42	0.00	500.25	011.0	510.00	- 51 0.00	515.44	0.00 0.00	575.10	001.01 011.1

MW-14	MW-14 MW-14 M	/W-14 MW-14	MW-14	MW-14 MW	-14 MW	/-14 N	MW-14 MV	V-14 M	W-14	MW-14	MW-14 MV	V-14 N	/W-14	MW-14	MW-14 M	V-14 M\	W-14	MW-14 MW-14											
DATE	Aug-95 May-96	Jul-97 Feb-98	Jun-99	Apr-00 Ap	-01 Ju	I-01 N	Nov-01 Ap	r-02 J	un-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07 Ap	or-08 S	Sep-08	Apr-09	Aug-09 A	or-10 Au	ıg-10	Apr-11 Sep-11
Benzene		nd															1												
Toluene		nd																											
Ethylbenzene		nd																											
Xylene (sum of isomers)		nd																											
Total BTEX		0																											
Naphthalene		nd																											
Acenaphthylene		nd																											
Acenaphthene		nd																											
Fluorene		nd																											
Phenanthrene		nd																											
Anthracene		nd																											
Fluoranthene		nd																											
Pyrene		nd																											
Benzo(a)Anthracene		nd																											
Chrysene		nd																											
Benzo(b)Fluoranthene		nd																											
Benzo(k)Fluoranthene		nd																											
Benzo(a)Pyrene		nd																											
Indeno(1,2,3-cd)Pyrene		nd																											
Dibenzo(a,h)Anthracene		nd																											
Benzo(g,h,i)Perylene		nd																											
2-Methylnaphthalene																													
Total PAHs		0																											
Cyanide, total (Exygen/ Test America)		644	427	800	914	378	449	886	416	487	664	962	583	nd	503	537	,											541	623 670
Cyanide, total (Clarkson Univ.)										ĺ					514	571		423	305	281	404	422	374	486	425	422	480		
Cyanide, free (Exygen/ Test America)				nd	nd	nd	nd	nd	17	12	nd	9	7	nd	14	13	5											nd	nd nd
Cyanide, free (Clarkson Univ.)														nd	nd	nd	I	nd	nd	nd	nd	nd	4	2.5	4.1	nd	nd		
Water Elevation (feet)	1	577.36 579.19	577.03	578.44 57	8.21 57	7.21	577.31 57	8.56 5	77.61	576.76	577.92	577.23	577.11	578.15	577.55	577.46	6	577.07	577.99	577.29	577.89	577.43 57	7.87 5	576.48	577.57	577.15 5	8.05 57	77.27	579.98 577.05

MW-15	MW-15 MW-15	MW-15	MW-15	MW-15	MW-15 MW-15	MW-15	MW-15 MW-1	5 MW-15	MW-	-15 MW-15 MW-1	5 MW-15	MW-15 MW	-15 M	W-15	MW-15 MW-15	MW-15	MW-15 MW-15 MW-15	MW-15	5 MW-15 MW-15	MW-15	MW-15	MW-15 MW-15	5 MW-15
DATE	Aug-95 May-96	Jul-97	Feb-98	Jun-99	Apr-00 Apr-01	Jul-01	Nov-01 Apr-0	2 Jun-02	Nov-	-02 Apr-03 Jul-0	B Nov-03	Mar-04 Jun	-04 No	ov-04	Apr-05 Jul-05	Apr-06	Aug-06 Apr-07 Aug-07	Apr-08	Sep-08 Apr-09	Aug-09	Apr-10	Aug-10 Apr-11	1 Sep-11
Benzene		nd									1												
Toluene		nd																					
Ethylbenzene		nd				1					1												
Xylene (sum of isomers)		nd																					
Total BTEX		0																					
Naphthalene		nd																					
Acenaphthylene		nd																					
Acenaphthene		nd																					
Fluorene		nd																					
Phenanthrene		nd																					
Anthracene		nd																					
Fluoranthene		nd																					
Pyrene		nd																					
Benzo(a)Anthracene		nd																					
Chrysene		nd																					
Benzo(b)Fluoranthene		nd																					
Benzo(k)Fluoranthene		nd																					
Benzo(a)Pyrene		nd																					
Indeno(1,2,3-cd)Pyrene		nd																					
Dibenzo(a,h)Anthracene		nd																					
Benzo(g,h,i)Perylene		nd																					
2-Methylnaphthalene																							
Total PAHs		0																					
Cyanide, total (Exygen/ Test America)		78.8																					
Cyanide, total (Clarkson Univ.)																							
Cyanide, free (Exygen/ Test America)																							
Cyanide, free (Clarkson Univ.)																							
Water Elevation (feet)		579.11	579.81	578.70	580.15 580.55	578.98	579.49 580.9	8 579.48	578	8.88 580.40 579.1	1 579.30	581.04 579	9.99		580.54 579.45	580.54	579.36 577.89	580.60	579.65 580.61	579.65	580.87	579.18 582.58	3 578.76

MW-16	MW-16 MW-16	MW-16 MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16 N	1W-16	MW-16	MW-16	MW-16 N	1W-16 N	/W-16	MW-16 MW-16
DATE	Aug-95 May-96	Jul-97 Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07 A	Apr-08	Sep-08	Apr-09	Aug-09 A	Apr-10 A	ug-10	Apr-11 Sep-1
Benzene		nd																											
Toluene		nd																											
Ethylbenzene		nd																											
Xylene (sum of isomers)		nd																											
Total BTEX		0																											
Naphthalene		nd																											
Acenaphthylene		nd																											
Acenaphthene		nd																											
Fluorene		nd																											
Phenanthrene		nd																											
Anthracene		nd																											
Fluoranthene		nd																											
Pyrene		nd																											
Benzo(a)Anthracene		nd																											
Chrysene		nd																											
Benzo(b)Fluoranthene		nd																											
Benzo(k)Fluoranthene		nd																											
Benzo(a)Pyrene		nd																											
Indeno(1,2,3-cd)Pyrene		nd																											
Dibenzo(a,h)Anthracene		nd																											
Benzo(g,h,i)Perylene		nd																											
2-Methylnaphthalene																													
Total PAHs		0																											
Cyanide, total (Exygen/ Test America)		346	459	360	214	214	138	174	23	187	203	130	220	254	297	293	307											602	617 700
Cyanide, total (Clarkson Univ.)															332	297	305	299	266	368	317	429	467	540	531	504	566		
Cyanide, free (Exygen/ Test America)				nd	nd	147	nd	nd	17	13	nd	89	20	95	12	104	nd											7.0	9.0 7.0
Cyanide, free (Clarkson Univ.)														3.4	2.8	nd	nd	nd	nd	nd	nd	4	6.9	5.0	5.5	4.4	2.4		
Water Elevation (feet)		580.17 581.49	570.00	501.04	501 50	590.00	590 77	592.00	500.00	500.04	591.00	590.40	500.05	500.00	504.05	504 70	594.00	570.04	592.14	500 50	500.07	E70.05 /	04 00	501 7	500.00	591.00 5	00.04	- 00 00	584.06 580.04
vvaler Elevation (feet)		500.17 581.49	3/9.66	001.01	581.59	380.06	380.77	382.08	380.23	580.34	581.92	J80.42	580.95	JØZ.83	581.35	JØ1.72	381.08	579.91	582.14	560.56	JQ7.91	5/8.25 5	01.82	581.7	JØZ.26	561.28 5	002.21	000.23	304.06 580.04

MW-17	MW-1	7 MW-1	7 MW-17	7 MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17 M	/W-17	MW-17	MW-17						
DATE	Aug-9	5 May-96	3 Jul-97	7 Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-1
Benzene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.32	nd	nd	nd	nd	nd	nd	nd	nd	nd	no						
Toluene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
Ethylbenzene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.1	nd	no						
Xylene (sum of isomers)				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.63	nd	no						
Total BTEX				0	0	0	0	0	0	0	0	0	0	0	0	0.32	0	0	0	0	0	0	0	1.73	0	0	0	0	0	0	0	(
Naphthalene				nd	nd	nd	nd	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc														
Acenaphthylene	1			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
Acenaphthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	no
Fluorene	1			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc
Phenanthrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc
Anthracene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc
Fluoranthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.73
Pyrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.75
Benzo(a)Anthracene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.61	nd	1.3
Chrysene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.63	nd	1.3
Benzo(b)Fluoranthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.54	nd	2
Benzo(k)Fluoranthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.59	nd	1.5
Benzo(a)Pyrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.50	nd	1.80
Indeno(1,2,3-cd)Pyrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.76	nd	4.4
Dibenzo(a,h)Anthracene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.83	nd	4.7
Benzo(g,h,i)Perylene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.7	nd	1.6
2-Methylnaphthalene							nd	nd	nd	nd	nd	nd	nd	nd	nd	no																
Total PAHs				0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.16	0	20.08
Cyanide, total (Exygen/ Te	est America)			34	nd	27	65	38	74	185	127	108	185	50	66	378	106	160	217											93	297	230
Cyanide, total (Clarkson U	Iniv.)																142	162	260	161	263	183	369	148	285	144	279	148	242			
Cyanide, free (Exygen/ Te	st America)					nd	13	nd	nd	nd	nd	nd	nd	16	nd	nd	nd	nd	61											nd	4	no
Cyanide, free (Clarkson U	niv.)															nd	nd	nd	nd	nd	5.2	nd	nd	nd	5.9	nd	5.0	nd	nd			
Water Elevation (feet)				582.36	579.73	581.90	581.96	580.12	580.88	582.38	579.86	580.48	582.01	580.46	580.96	582.40	581.27	581.72	582.71	579.96	582.14	580.62	582.87	578.36	583.02	581.13	582.30	581.36	582.61	580.18	583.98	NM
			+	302.00	515.15	1 301.30	301.00	500.12	300.00	202.00	010.00	300.40	502.01	500.40		502.40	501.21	551.12	302.71	010.00	502.14	500.02	502.07		500.02	301.13	502.00		502.01	200.10	500.00	

MW-18	MW-18	MW-18	MW-18	MW-18 MW-18	3 MW-18	MW-18 M	W-18 MW-18	MW-18		 T					1		
DATE	Aug-95	May-96	Jul-97	Feb-98 Jun-99	Apr-00	Apr-01 J	ul-01 Nov-01	Apr-02									
Benzene				nd nd	i nd	l nd	nd nd	nd									
Toluene				nd nd	i nd	l nd	1.1 nd	nd									
Ethylbenzene				nd nd	i nd	l nd	nd nd	nd									
Xylene (sum of isomers)				nd nd	i nd	l nd	nd nd	nd									
Total BTEX				0 0	0 0	0	1.1 0	0									
Naphthalene				nd nd	i nd	l nd	nd nd	nd									
Acenaphthylene				nd nd	i nd	l nd	nd nd	nd									
Acenaphthene				nd nd	i nd	l nd	nd nd	nd									
Fluorene				nd nd	i nd	l nd	nd nd	nd									
Phenanthrene				nd nd	i nd	l nd	nd nd	nd									
Anthracene				nd nd	i nd	l nd	nd nd	nd									
Fluoranthene				nd nd	i nd	nd	nd nd	nd									
Pyrene				nd nd	i nd	l nd	nd nd	nd									
Benzo(a)Anthracene				nd nd	i nd	l nd	nd nd	nd									
Chrysene				nd nd	i nd	nd	nd nd	nd									
Benzo(b)Fluoranthene				nd nd	i nd	nd	nd nd	nd									
Benzo(k)Fluoranthene				nd nd	i nd	nd	nd nd	nd									
Benzo(a)Pyrene				nd nd	i nd	l nd	nd nd	nd									
Indeno(1,2,3-cd)Pyrene				nd nd	i nd	nd	nd nd	nd									
Dibenzo(a,h)Anthracene				nd nd	i nd	l nd	nd nd	nd									
Benzo(g,h,i)Perylene				nd nd	i nd	nd	nd nd	nd									
2-Methylnaphthalene						nd	nd nd	nd									
Total PAHs				0 0	0 0	0	0 0	0									
Cyanide, total (Exygen/Tes	t America)			nd nd	i nd	13	nd nd	nd									
Cyanide, total (Clarkson Ur	iv.)																
Cyanide, free (Exygen/ Tes	t America)				nd	l nd	24 nd	nd									
Cyanide, free (Clarkson Un	iv.)																
Water Elevation (feet)				585.46 582.65	585.06	585.40 58	33.84 583.84	582.74									

MW-19	MW-19 MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
DATE	Aug-95 May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11
Benzene				4700	5700	6000	4600	4700	4800	3800	4200	4600		5300	4900	6000	5800	7500	5800	5800	5600	6700	4500	5200	3700	3700	3700	4300	4700	4400	4200
Toluene				nd			160			nd	nd	nd		nd		nd	nd	nd	nd	nd	nd										
Ethylbenzene				nd		260				150	140	170		130	170	330		350	270	260	200	220	100		120	180		290	230	280	
Xylene (sum of isomers)				1500						470		560		400	440	1000	660	950	770	730	810	710	470		510	470		340	190	nd	
Total BTEX				6200	8180			5360	5540	4420	4880	5330		5830	5510			8800	6840	6790	6610	7630	5070		4330	4350		4930	5120	4680	4370
Naphthalene				1900	2200	2200	2000	2100	2300	2000	2100	2400	2100	2000	2700	2900	2800	3000	2600	2800	3600	3100	4600	4100	2600	3600	3600	3300	3700	3300	2700
Acenaphthylene				nd																											
Acenaphthene				nd	1.5	nd	nd	nd	nd	0.27	nd	nd																			
Fluorene				nd																											
Phenanthrene				nd																											
Anthracene				nd																											
Fluoranthene				nd																											
Pyrene				nd																											
Benzo(a)Anthracene				nd																											
Chrysene				nd																											
Benzo(b)Fluoranthene				nd																											
Benzo(k)Fluoranthene				nd																											
Benzo(a)Pyrene				nd																											
Indeno(1,2,3-cd)Pyrene				nd																											
Dibenzo(a,h)Anthracene				nd																											
Benzo(g,h,i)Perylene				nd																											
2-Methylnaphthalene						nd	0.82	nd	5.5	4.8	nd	5.5	4.7	3.5	6.2	6.7	7.2	7.6	9.3	nd											
Total PAHs				1900	2200	2200	2001	2100	2300	2000	2100	2400	2100	2000	2700	2900	2800	3000	2600	2806	3605	3100	4606	4106	2603.5	3606.2	3606.7	3307.2	3707.9	3309.3	2700
Cyanide, total (Exygen/ Test	America)			1100																											
Cyanide, total (Clarkson Univ	/.)																														
Cyanide, free (Exygen/ Test	America)																														
Cyanide, free (Clarkson Univ	/.)																														
Water Elevation (feet)				577.43	581.36	581.13	579.63	580.12	581.73	579.73	579.83	581.24	580.01	580.19	582.00	580.79	580.98	581.90	579.57	581.42	580.15	582.26	578.2	581.6	580.52	581.46	580.70	581.8	579.78	583.45	579.54

MW-20	MW-20 MW-20	MW-20	MW-20	MW-20	MW-20 MW	-20 MV	V-20	MW-20 M\	N-20	MW-20	MW-	20 MW-2	0 MW-2	0 MW-2	0 MW	-20 MW-2	0 MW-2	0 MW-2	0 MW-20	MW-20	MW-20	MW-20 MW-	-20 N	MW-20	MW-20 MW-2	0 MW-2	0 MW-20	0 MW-20	MW-20	MW-20
DATE	Aug-95 May-96	Jul-97	Feb-98	Jun-99	Apr-00 Ap	-01 Ju	ıl-01	Nov-01 A	pr-02	Jun-02	Nov-	02 Apr-0	3 Jul-0	3 Nov-0	3 Mai	-04 Jun-0	4 Nov-0	4 Apr-0	5 Jul-05	Apr-06	Aug-06	Apr-07 Aug-	-07	Apr-08	Sep-08 Apr-0	9 Aug-0	Apr-10	) Aug-10	Apr-11	Sep-11
Benzene				nd																										
Toluene				nd																										
Ethylbenzene				nd																										
Xylene (sum of isomers)				nd																										
Total BTEX				0																										
Naphthalene				nd																										
Acenaphthylene				nd																										
Acenaphthene				nd																										
Fluorene				nd																										
Phenanthrene				nd																										
Anthracene				nd																										
Fluoranthene				nd																										
Pyrene				nd																										
Benzo(a)Anthracene				nd																										
Chrysene				nd																										
Benzo(b)Fluoranthene				nd																										
Benzo(k)Fluoranthene				nd																										
Benzo(a)Pyrene				nd																										
Indeno(1,2,3-cd)Pyrene				nd																										
Dibenzo(a,h)Anthracene				nd																										
Benzo(g,h,i)Perylene				nd																										
2-Methylnaphthalene																														
Total PAHs				0																										
Cyanide, total (Exygen/ Test America)				344	450	295	439	46	455	361		8 50	6 39	9 2	1	501 24	2 38	64	4									139	690	560
Cyanide, total (Clarkson Univ.)																24	2 44	4 40	2 160	429	172	469 3	337	494	115 4 <sup>.</sup>	8 26	3 495	5		
Cyanide, free (Exygen/ Test America)					nd	13	nd	nd	nd	10		9 r	d 4	4 1	4	nd n	d 5	i3 1	3									nd	6	nd
Cyanide, free (Clarkson Univ.)																nd n	d r	id n	d nd	nd	nd	nd	2.6	3.2	nd r	id ni	d no	i		
Water Elevation (feet)				576 67	570 24 57	06 57	6.76	577 15 57	70.20	677 40	576	60 579 3	4 576 0	0 577 4	6 570	06 577 4	2 577 9	570 0	2 576 60	579.00	577.07	579.03 575	70	570 40	577.4 578.3	0 577 0	7 579 0	577.14	590.62	576 /1
				5/0.0/	579.24 57	0.00 5/	0.76	5/7.15 5/	9.20	5/7.49	5/6.	5/8.3	4 5/6.9	0 5//.1	0 5/6	5//.4	2 5//.8	2 5/8.8	2 5/0.60	3/8.20	577.07	5/9.03 5/5	./8	5/8.43	5/7.4 5/8.	0 5/1.8	5/8.5	5/7.11	560.62	5/0.41
											l									l										

MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	/W-21	MW-21	MW-21	MW-21	1W-21 I	MW-21	MW-21 MW-2								
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11 Sep-1
Benzene					nd																										
Toluene					nd																										
Ethylbenzene					nd																										
Xylene (sum of isomers)					nd																										
Total BTEX					0																										
Naphthalene					nd																										
Acenaphthylene					nd																										
Acenaphthene					nd																										
Fluorene					nd																										
Phenanthrene					nd																										
Anthracene					nd																										
Fluoranthene					nd																										
Pyrene					nd																										
Benzo(a)Anthracene					nd																										
Chrysene					nd																										
Benzo(b)Fluoranthene					nd																										
Benzo(k)Fluoranthene					nd																										
Benzo(a)Pyrene					nd																										
Indeno(1,2,3-cd)Pyrene					nd																										
Dibenzo(a,h)Anthracene					nd																										
Benzo(g,h,i)Perylene					nd																										
2-Methylnaphthalene																															
Total PAHs					0																										
Cyanide, total (Exygen/ Tes	st America)				511	560	898	558	535	756	674	670	637	708	569	714	741	740	664											433	539 42
Cyanide, total (Clarkson Ur	niv.)																749	709	688	545	404	448	574	560	543	417	485	441	508		
Cyanide, free (Exygen/ Tes	t America)					nd	14	nd	nd	24	12	13	nd	11	nd	nd	nd	7	20											nd	6 n
Cyanide, free (Clarkson Ur	iv.)															nd	nd	nd	nd	2.6	nd	nd	nd	nd	18.5	4.2	nd	nd	nd		
Water Elevation (feet)					576.51	578.08	577.68	576.55	576.58	578.03	576.97	576.28	575.32	576.55	576.42	577.70	576.86	576.85	577.71	576.38	577.28	576.75	578.38	576.79	577.42	576.94	577.35	576.93	77.43	576.67	579.32 575.2
					510.51	1 010.00	511.00	010.00	570.50	510.03	- 510.91	510.20	515.52	570.33	570.42	5/1.10	010.00	570.00	511.71	510.30	511.20	570.75	570.30	510.19	511.42	1010.94	511.55	510.33		570.07	010.02 010.2

DATEAug-95May-96Jul-97Feb-50BenzeneImage: Second	.∠µMVV-22	W-22 N	/W-22 MW-	22 MW-2	2 MW-22	MW-22 M	/W-22	MW-22	MW-22 MW-	22 MW-22	MW-22	MW-22 MW	22 MW-22	MW-22 MW-22											
Toluene       Image: Second Seco	8 Jun-99	un-99 A	Apr-00 Apr-	01 Jul-0	1 Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06 A	Aug-06	Apr-07	Aug-07 Apr-	08 Sep-08	Apr-09	Aug-09 Apr	10 Aug-10	Apr-11 Sep-11
Toluene       Image: Second Seco																									
Ethylbenzene       Image: Second	e	6																				ĺ			
Xylene (sum of isomers)         Image: Constraint of the system of t	nc	nd																							
Total BTEX       Image: Constraint of the system of the syst	nc	nd																				1			
Naphthalene       Image: Second	nc	nd																							
Acenaphthylene       Image: Constraint of the second	e	6																				ĺ			
Acenaphthylene       Image: Constraint of the second																									
Acenaphthene       Image: Constraint of the second se	nc	nd																							
Fluorene       Image: Constraint of the second	nc	nd																							
Phenanthrene     Image: Constraint of the sector of the sect	nc	nd																							
Anthracene       Image: Constraint of the sector of the sect	nc	nd																							
Fluoranthene       Image: Sector	nc	nd																							
Pyrene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a)Pyrene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Benzo(a,h)Anthracene     Image: Constraint of the system     Image: Constraint of the system       Cyanide, total (Exygen/ Test America)     Image: Constraint of the system     Image: Constraint of the system       Cyanide, free (Exygen/ Test America)     Image: Constraint of the system     Image: Constraint of the system	nc	nd																							
Benzo(a)Anthracene       Image: Constraint of the service of the servic	nc	nd																							
Chrysene     Image: Chrysene       Benzo(b)Fluoranthene     Image: Chrysene       Benzo(k)Fluoranthene     Image: Chrysene       Benzo(a)Pyrene     Image: Chrysene       Indeno(1,2,3-cd)Pyrene     Image: Chrysene       Dibenzo(a,h)Anthracene     Image: Chrysene       Benzo(a,h)Anthracene     Image: Chrysene       Benzo(a,h)Anthracene     Image: Chrysene       Benzo(a,h)Anthracene     Image: Chrysene       Chrysene     Image: Chrysene       Chrysene     Image: Chrysene       Chrysene     Image: Chrysene       Cyanide, total (Exygen/ Test America)     Image: Chrysene       Cyanide, free (Exygen/ Test America)     Image: Chrysene	nc	nd																							
Benzo(b)Fluoranthene     Image: Constraint of the second sec	nc	nd																							
Benzo(k)Fluoranthene       Image: Constraint of the system o	nc	nd																				ĺ			
Benzo(a)Pyrene     Indeno(1,2,3-cd)Pyrene       Indeno(1,2,3-cd)Pyrene     Indeno(1,2,3-cd)Pyrene       Dibenzo(a,h)Anthracene     Indeno(1,2,3-cd)Pyrene       Benzo(g,h,i)Perylene     Indeno(1,2,3-cd)Pyrene       2-Methylnaphthalene     Indeno(1,2,3-cd)Pyrene       Total PAHs     Indeno(1,2,3-cd)Pyrene       Cyanide, total (Exygen/ Test America)     Indeno(1,2,3-cd)Pyrene       Cyanide, total (Clarkson Univ.)     Indeno(1,2,3-cd)Pyrene       Cyanide, free (Exygen/ Test America)     Indeno(1,2,3-cd)Pyrene	nc	nd																							
Indeno(1,2,3-cd)Pyrene	nc	nd																				ĺ			
Dibenzo(a,h)Anthracene Benzo(g,h,i)Perylene 2-Methylnaphthalene Total PAHs Cyanide, total (Exygen/ Test America) Cyanide, total (Clarkson Univ.) Cyanide, free (Exygen/ Test America)	nc	nd																							
Benzo(g,h,i)Perylene     Image: Comparison of the second sec	nc	nd																							
2-Methylnaphthalene Total PAHs Cyanide, total (Exygen/ Test America) Cyanide, total (Clarkson Univ.) Cyanide, free (Exygen/ Test America)	nc	nd																							
Total PAHs	nc	nd																							
Cyanide, total (Exygen/ Test America) Cyanide, total (Clarkson Univ.) Cyanide, free (Exygen/ Test America)																									
Cyanide, total (Clarkson Univ.) Cyanide, free (Exygen/ Test America)	0	0																							
Cyanide, total (Clarkson Univ.) Cyanide, free (Exygen/ Test America)																									
Cyanide, free (Exygen/ Test America)	487	487	600 10	10 73	4 460	703	1570	467	604	560	1080	741	504	803	941									778	1030 860
													676	759	628	534	587	540	642	641 6	66 785	704	690	71	
Cyanide, free (Clarkson Univ.)			nd	nd 20	1 nd	nd	49	231	267	88	49	132	nd	207	99									no	7 nd
<u> </u>												nd	8	nd	3.1	2.4	nd	nd	nd	4.3 5	5.9 3.3	3.1	3.4	nd	
	-																								
Water Elevation (feet)	578.80	78.80 5	580.70 580.	51 579.0	9 579.50	581.25	580.05	579.10	580.62	579.42	579.47	581.27	580.05	580.22	581.28	579.13	580.69	579.60	581.75	578.02 581.	03 579.93	580.86	580.03 581	19 579.29	583.13 578.99
	-				1																				

MW-23		MW-23 MW-2	3 MW-2	3 MW-23	MW-23	MW-23	MW-23	MW-23	8 MW-23	MW-23	MW-23	MW-23	MW-23	MW-23 MW-2	3 MW-23	3 MW-23	MW-23 M\	W-23	MW-23	MW-23 MW	-23 M	N-23	MW-23 MW-	23 MW-	23 MW-	-23 MV	W-23 MW-23	8 MW-23	MW-23 MW-2
DATE		Aug-95 May-9	6 Jul-9	7 Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03 Nov-0	3 Mar-04	4 Jun-04	Nov-04 Aj	.pr-05	Jul-05	Apr-06 Aug	J-06 A	pr-07	Aug-07 Apr-	08 Sep-	08 Apr-	09 Auç	ig-09 Apr-10	) Aug-10	Apr-11 Sep-1
									<u> </u>															_	_				
Benzene			_			nd						nd		r			nd				nd				nd		nd	nd	n
Toluene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Ethylbenzene			_			nd						nd		r	d		nd				nd				nd		nd	nd	n
Xylene (sum of isomers)						nd						nd		r	d		nd				nd				nd		nd	nd	n
Total BTEX						0						0			0		0				0			_	0		0	0	
Naphthalene				-		nd						nd		r	d		nd				3.6				nd		nd	nd	n
Acenaphthylene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Acenaphthene						nd			1			nd		r	d		nd				nd				nd		nd	nd	n
Fluorene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Phenanthrene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Anthracene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Fluoranthene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Pyrene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Benzo(a)Anthracene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Chrysene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Benzo(b)Fluoranthene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Benzo(k)Fluoranthene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Benzo(a)Pyrene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Indeno(1,2,3-cd)Pyrene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Dibenzo(a,h)Anthracene						nd						nd		r	d		nd				nd				nd		nd	nd	n
Benzo(g,h,i)Perylene				_		nd						nd		r	d		nd				nd				nd		nd	nd	n
2-Methylnaphthalene												nd		r	d		nd				nd				nd		nd	nd	n
Total PAHs						0						0			0		0				3.6				0		0	0	
Cyanide, total (Exygen/ Te	est America)					480	658	469	654	480	425	728	356	620 72	9 58	7 446	437	274										299	307 36
Cyanide, total (Clarkson U	Iniv.)															493	560	359	325	267	321	326	374 2	52 3	14 2	276	320 277	7	
Cyanide, free (Exygen/ Te	st America)					nd	nd	nd	l nd	nd	12	10	nd	15	6	5 9	5	57										nd	6
Cyanide, free (Clarkson U	niv.)														n	d nd	nd	nd	nd	nd	nd	nd	nd 3	3.2 11	.7	nd	nd nd	i	
Water Elevation (feet)						578.66	578.30	577.40	577.58	578.69	577.83	577.18	578.11	577.40 577.2	9 578.54	4 577.83	577.91 57	78.61	577.44	578.19 57	7.63 5	78.95	577.19 578.	37 577.	33 578.	.16 57	7.95 578.44	577.53	580.42 577.0
																												1	

Jun-99		nd n nd n nd n nd n n d 2. nd 2. nd 1. nd 1. nd n	d 1 d 1 d 1 d 1 0 0 9 1 d 1	Apr-0 Apr-0 nd n nd n nd n n d n 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	d no d 2 d no d no d no	d no 2 no d no d no 2 (	d nd d nd	Jul-03 nd nd nd nd	Nov-03 nd nd nd	0.44 0.38 nd	Jun-04 I nd nd nd	Nov-04 nd nd nd	Apr-05 nd nd	nd 0.47	nd	nd	nd	Aug-07 Apr-08 Dry nd nd	nd	nd	nd	pr-10 / nd nd nd	nd	nd 0.15 nd 0.22
		nd n nd n nd n 0 nd 2. nd 2. nd 1. nd n	d r d r d r d r d r d r d r d r d r	nd n nd n nd n 0 nd n	d 2 d no d no 0 2	2 no d no d no 2 (	d nd d nd	nd nd	nd	0.38 nd	nd	nd	nd	0.47	nd	nd	nd		nd	nd	nd	nd	nd	nd 0.22
		nd n nd n nd n 0 nd 2. nd 2. nd 1. nd n	d r d r d r d r d r d r d r d r d r	nd n nd n nd n 0 nd n	d 2 d no d no 0 2	2 no d no d no 2 (	d nd d nd	nd nd	nd	0.38 nd	nd	nd	nd	0.47	nd	nd	nd		nd	nd	nd	nd	nd	nd 0.22
		nd n nd n 0 nd 2. nd 2. nd 1. nd n	d 1 d 1 0 9 1 d 1	nd n nd n 0	d no d no 0 2	d no d no 2 (	d nd	nd	nd	nd								nd						
		nd n 0 nd 2. nd n nd 1. nd n	d 1 0 9 1 d 1	nd n 0 nd n	d no 0 2	d no 2 (					nd	nd	nd			0.00						nd	54	
		0 nd 2. nd n nd 1. nd n	0 9 r d r	0 nd n	0 2	2 (	d nd 0 0	nd	nd				nd	nd	nd	0.23	nd	nd	nd	nd	nd	nu	nd	nd 0.6
	1 1 1 1 1	nd 2. nd n nd 1. nd n	9 r d r	nd n			0 0	0		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd 0.54
	1 1 1 1 1	nd n nd 1. nd n	d r		d no			0	0	0.82	0	0	0	0.47	0	0.23	0	0	0	0	0	0	0	0 1.51
	1 1 1 1 1	nd n nd 1. nd n	d r		d no																			
	1 1 1	nd 1. nd n		nd n		d 1.6	6 nd	nd	nd	nd	nd	nd	nd	nd	32	nd	nd	2.3	nd	nd	nd	nd	nd	nd nd
	1	nd n	1 1		d no	d no	d nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd nd
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		0	4	0	0 0	0 1.6	6 0	0	0	0	0	0	0	0.9	32	0	0	2.3	0	0	0	0	0	0 0
	2	21 5	5	35	8 40	5 2'	1 13	88	36	989	40	38	9										12.6	30.3 11
											46	53	10	5	4	24	nd	14	5	25	23	3.6		
	1	nd 1	6 I	nd n	d 29	9 6	6 nd	10	nd	86	6	19	nd										nd	6 nd
										98.1	nd	nd	3.2	2.4	2.3	2.4	5	nd	nd	nd	nd	2.6		
	0 580.40 580. <sup>4</sup>	0 580.0	0 580.	10 581.0	0 579.60	0 579.80	580.70	581.40	582.00	582.30	580.60	581.30	581.30	579.90	581.60 5	80.20	582.80	581.57	581.80	581.55	580.83 5	82.25	580.19	580.19 580.1§
	.80										98.1	nd         16         nd         nd         29         6         nd         10         nd         86         6 <td>nd         16         nd         nd         29         6         nd         10         nd         86         6         19   <!--</td--><td>nd         16         nd         nd         29         6         nd         10         nd         86         6         19         nd           Image: Ima</td><td>nd         16         nd         nd         29         6         nd         10         nd         86         6         19         nd</td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd       1         1       &lt;</td><td>nd       16       nd       nd       29       6       nd       10       nd       86       6       19       nd          1  <td< td=""><td>nd         16         nd         29         6         nd         10         nd         86         6         19         nd</td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd  </td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd  </td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd       n</td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd       n</td><td>nd       16       nd       nd       29       6       nd       10       nd       6       19       nd       n</td><td>nd       nd       nd       nd       29       6       nd       10       nd       6       19       nd       1       nd       nd</td></td<></td></td>	nd         16         nd         nd         29         6         nd         10         nd         86         6         19 </td <td>nd         16         nd         nd         29         6         nd         10         nd         86         6         19         nd           Image: Ima</td> <td>nd         16         nd         nd         29         6         nd         10         nd         86         6         19         nd</td> <td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd       1         1       &lt;</td> <td>nd       16       nd       nd       29       6       nd       10       nd       86       6       19       nd          1  <td< td=""><td>nd         16         nd         29         6         nd         10         nd         86         6         19         nd</td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd  </td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd  </td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd       n</td><td>nd       16       nd       29       6       nd       10       nd       86       6       19       nd       n</td><td>nd       16      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      nd       86       6       19       nd       n	nd       16       nd       29       6       nd       10       nd       86       6       19       nd       n	nd       16       nd       nd       29       6       nd       10       nd       6       19       nd       n	nd       nd       nd       nd       29       6       nd       10       nd       6       19       nd       1       nd       nd

SW-02	SW-0	2 SW-0	2 SW-0	2 SW-0	2 SW-02	SW-02 SV	V-02	SW-02	SW-02	SW-02 S	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02 SW-0	2 SW-0	2 SW-0	2 SW-	02 SW-0	02 SW-0	2 SW-02	SW-02								
DATE	Aug-9	5 May-9	6 Jul-9	7 Feb-9	8 Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03 No	v-03 I	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07 Apr-0	8 Sep-0	8 Apr-0	9 Aug-	09 Apr-1	10 Aug-1	0 Apr-11	Sep-11
Benzene			n	d	nd	6	2	nd	nd	1.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	Dry n	d r	d n	d	nd r	nd n	d nd	nd
Toluene		-	n		nd			nd				nd	nd		nd	nd	nd	nd	nd	nd		nd	nd					23 0.1			
Ethylbenzene			n		nd			nd							nd	nd	nd	nd	nd			nd	nd			-		-	nd n		
Xylene (sum of isomers)			n		nd			nd				nd	nd		nd	nd	nd	nd	nd	nd		nd	nd						nd n		
Total BTEX				0	0	53		0			0	0		0	0	0	0	0	0	0	0	0	0			0		23 0.1	-		
				-																						-		20 0.			
Naphthalene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.9	4 r	d n	d	nd r	nd n	d nd	nd
Acenaphthylene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd n	d nd	nd
Acenaphthene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd i	nd n	d nd	nd
Fluorene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd n	d nd	nd
Phenanthrene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	id 0.	72 r	nd n	d nd	nd
Anthracene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd 0.1	9 nd	nd
Fluoranthene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d .	1.2 r	nd 0.6	3 nd	1.2
Pyrene			n	d	nd	nd	nd	0.77	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d ·	l.1 r	nd 0.5	5 nd	0.92
Benzo(a)Anthracene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	id 0.	49 r	nd 1.	5 nd	nd
Chrysene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	id 0.	85 r	nd 1.	2 nd	nd
Benzo(b)Fluoranthene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d .	1.2 r	nd 1.	3 nd	1.7
Benzo(k)Fluoranthene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd 1.	2 nd	nd
Benzo(a)Pyrene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	id 0.	63 r	nd 1.	1 nd	nd
Indeno(1,2,3-cd)Pyrene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd 1.	3 nd	nd
Dibenzo(a,h)Anthracene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd 1.	3 nd	nd
Benzo(g,h,i)Perylene			n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	id 0.	55 r	nd 1.	5 nd	nd
2-Methylnaphthalene							nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d r	d n	d	nd r	nd n	d nd	nd							
Total PAHs				0	0	C	0	0.77	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0.9	4	0	0 6.	74	0 11.7	7 0	3.82
Cyanide, total (Exygen/ Te	st America)		77.	5	nd	380	121	nd	7	130	nd	1440	17	30	62	48	nd	24	nd								+		36	9 nd	93
Cyanide, total (Clarkson U	niv.)																nd	50	nd	nd	3	nd	nd	8	6 8	6 1	6 1	41 4	.4		
Cyanide, free (Exygen/ Tes	st America)					111	nd	nd	nd	16	nd	42	nd	nd	nd	20	nd	12	nd										n	d 6	11
Cyanide, free (Clarkson Ur	niv.)															19.2	nd	6.2	nd	nd	2.3	nd	8.6	50.	7 10	1 n	id :	3.0 r	nd		
Water Elevation (feet, appro	oximate)				580.3	580.9	580.6	580.5	580.6	581.5	580.1	580.3	581.1	581.8 5	82.4	582.7	581.0	581.7	581.7	580.3	582.0	580.6	583.2								

Appendix B

**Annual Site Inspection Form** 

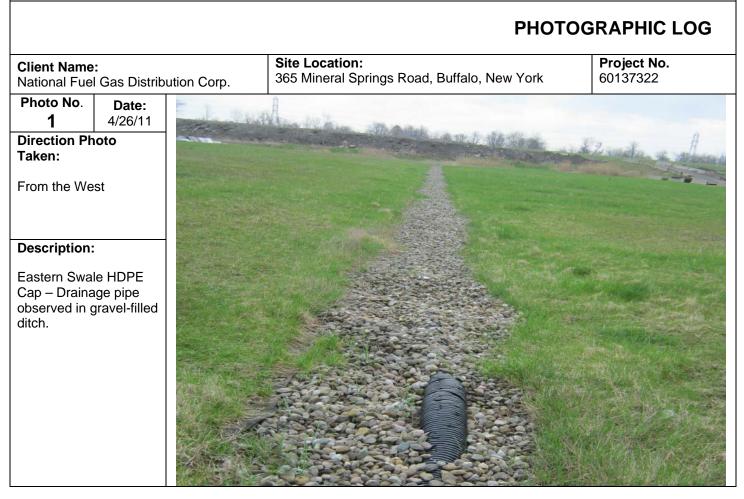
# Annual Site Inspection Form

Mineral Springs Road Former MG	MGF
--------------------------------	-----

Inspection by: Thomas P.	Clark, P.E.	Affiliation: AECOM Environme	nt, Inc.
Signature:	$\Delta l$	Date: April 26, 2011 (Inspecti	
	<u> </u>		
ASPHALT CAP SOUTH OF E	BUILDING #3 (B3SAC)	CLAY CAP BEHIND BUILDING	#14 (CC)
Cracks or ruts ?	Yes No Yes No	Animal dens ? Erosion ?	Yes No Yes No
Erosion at edges ?	Š	Trees ?	Yes No
Blue-stained soil ?	Yes (No)	Blue-stained soil ?	ĕ
Comments:	riously sealed cracks intact. No	Comments:	Yes No
	n one small area by catch basin.		
elginneent perionig encope	·····		to the cap along the south side the cap observed. See photos.
ASPHALT CAP EAST OF BU	BALL HA		the cap observed. See photos.
ASPHALI CAP EAST OF BU	EDING #3 (DELAC)	EASTERN DRAINAGE DITCH	
0	Yes (II)	EASTERN DRAINAGE DITCH	(EDD)
Cracks or ruts?	Yes No	Animal dens ?	Yon (No)
Erosion at edges ?	Yes No	Erosion ?	Yes No
Blue-stained soil ?	Yes (No)		$\times$
Comments: Cap in good condition. Prev	iously sealed cracks intact. A few	Trees ? Blue-stained soil ?	Yes No
minor new cracks.			Yes No
		Hydrocarbon sheen ?	Yes No
	(ESNAC)	Inadequate Signage ?	Yes No
ASPHALT CAP NORTH OF	EASTERN SWALE (LONG)	Trash / Debris ?	Yes No
	X (T)	Comments:	water levels around by barry
Cracks or ruts ?	Yes No	rains.	water levels caused by heavy
Erosion at edges ?	Yes No		
Blue-stained soil ?	Yes No		
Comments:		BACKFILLED EXCAVATIONS	(NIDE, OTDE, ETDE, SETEE)
and the second	k sealing in good condition. Debris	Excessive settlement ?	Yes (No)
and soil between cap and E	DD.	Ponding of surface water ?	Š
		Tar boils ?	<u> </u>
ASPHALT CAP SOUTH OF E	ASTERN SWALE (ESSAC)	Blue-stained soil ?	Yes No Yes No
0	Yes No	Comments:	Tes No
Cracks or ruts ?	Yes No Yes No	Comments.	
Erosion at edges ?			
Blue-stained soil ?	Yes No		
Comments:	· · · · · · · · · · · · · · · · · · ·	CLASS D STREAM	
Cap in good condition. No	significant cracking.	CLASS D'STREAM	
		Hydrocarbon sheen ?	Yes No
HDPE/SOIL CAP IN EASTER		Comments:	
INDEGOIL CAP IN EASTER		Because of high water levels,	some portions of stream not
Cracks or ruts ?	Yes No		served near culvert intake next
	Yes No	to CC.	
Erosion at edges ?	ĕ	SITE FENCE	
Blue-stained soil ?	Yes No		Vas No
Comments: Cap in good condition. No	ponding after heavy rain. Some	Damage / Holes ? Comments:	Yes No
	nd south side of cap. Plastic pipe		of fance could not be increased
	ditch. Chain fence knocked over.	because of flooding.	of fence could not be inspected
		because of noounig.	

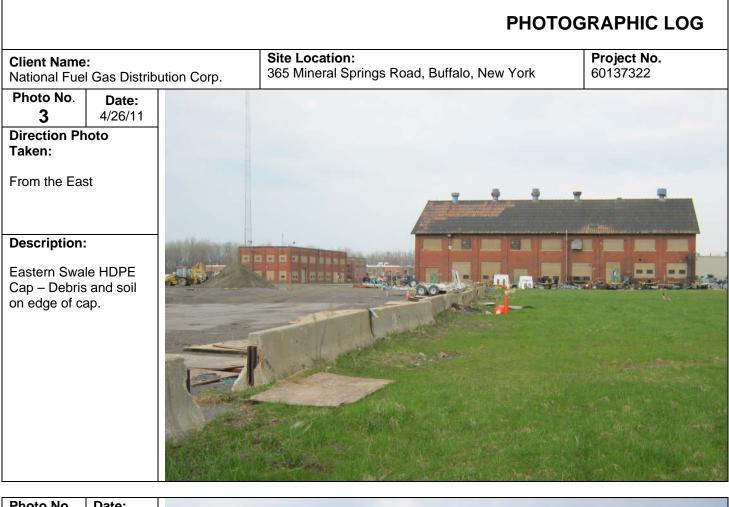
Appendix C

Photographs



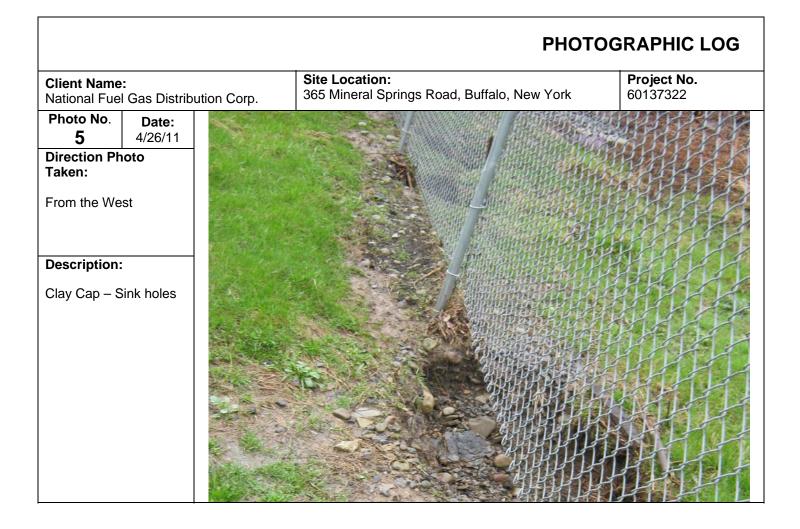


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Appendix D

# Institutional and Engineering Controls Certification Form



# Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Site No. V00195	Site Details	Box 1	
Site Name NFG - Mineral Springs M	IGP		
Site Address: 365 Mineral Springs Ro City/Town: West Seneca County: Erie Site Acreage: 80.0	ad Zip Code: 14210		
Reporting Period: October 02, 2010 to	o October 02, 2011		
		YES	NO
1. Is the information above correct?			
If NO, include handwritten above of	or on a separate sheet.	_	_
	y been sold, subdivided, merged, or undergone a		$\boxtimes$
3. Has there been any change of use (see 6NYCRR 375-1.11(d))?	e at the site during this Reporting Period		
<ol> <li>Have any federal, state, and/or loc for or at the property during this Re</li> </ol>	cal permits (e.g., building, discharge) been issued eporting Period?		K
	ns 2 thru 4, include documentation or evidence eviously submitted with this certification form		
5. Is the site currently undergoing de	velopment?		
		Box 2	
		YES	NO
6. Is the current site use consistent w Commercial and Industrial	vith the use(s) listed below?		
7. Are all ICs/ECs in place and functi	oning as designed?	X	
	R QUESTION 6 OR 7 IS NO, sign and date below a THE REST OF THIS FORM. Otherwise continue.	and	
A Corrective Measures Work Plan mus	st be submitted along with this form to address t	hese iss	ues.
Signature of Owner, Remedial Party or D	Designated Representative Date		

#### **Description of Institutional Controls**

Owner

Parcel 123.16-2-8 National Fuel Gas Distribution Corp.

Institutional Control

Ground Water Use Restriction Landuse Restriction

Box 4

#### **Description of Engineering Controls**

Parcel 123.16-2-8 **Engineering Control** 

Cover System Fencing/Access Control

#### **Engineering Control Details for Site No. V00195**

#### Parcel: 123.16-2-8

i. All identified capped areas shall continue to be protective of public health and the environment, and shall continue to be maintained and monitored to be consistent with industrial/commercial use.

ii. The owner of the Property shall prohibit the Property from ever being used for purposes other than for an industrial/commercial operation, office, warehouse and garage facility and for the services associated with such use without the express written waiver of such prohibition by the Relevant Agency.

iii. The owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.

	Box 5
	Periodic Review Report (PRR) Certification Statements
۱.	I certify by checking "YES" below that:
	<ul> <li>a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;</li> </ul>
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.
	YES NO
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
	(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
	A Corrective Measures Work Plan must be submitted along with this form to address these issues.
	Signature of Owner, Remedial Party or Designated Representative Date

#### IC CERTIFICATIONS SITE NO. V00195

Box 6

#### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jay WL	<u>esch</u> at	365	Minerel print business	<u>Sprins</u> address	<u>69</u>	<u>BLEFIL</u> MY 14210
am certifying as	Owner		·	(Ov	wner or F	Remedial Party)
for the Site named in	the Site Details Section	on of this	form.		111.	1
Signature of Owner, F Rendering Certification	Remedial Party, or Des	signated	Representative	Da	<u>t / / /</u> te	

# IC/EC CERTIFICATIONS

# **Professional Engineer Signature**

Box 7

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Thomas P. Clark	at AECOM, 250 Apollo Drive, Chelmsford, MA 01824				
print name		print business address			
am certifying as a Professional Enginee	r for the _	National Fuel Gas Distribution Company			
Signature of Professional Engineer, for Remedial Party, Rendering Certification		r or Stamp (Required for PE)			